enthusiasm and understandable only to the chosen few. The scholar for instance, can find no linguistic formula for the understanding or interpretation of such words as sexine and nexine as compounded by the palynologist to convey his special meaning. Unless a glossary accompanies each work, the reader is forced to trace such terms back through the special literature until such time as these words find their way into a dictionary. Instead of compounding the linguistic roots of a noun and its modifying adjective, there are added, as prefixes to the word "exine," the letter "s" derived from the adjective "sculptured" and the letter "n" derived from the adjective "nonsculptured." Each prefix is supposed to impart the meaning of the adjective from which it was detached. This is not language! This is jargon! In a science as young as palynology it would pay even now to go back and reconstruct its terminology to make it linguistically understandable and give it the dignity of the language of scholars.

The main body of the work, however, is on a sound foundation and represents a significant contribution to scientific knowledge. In his presentation of a comparative resumé of the pollen characters of each family it is evident that the author is keenly aware of the taxonomic problems of an amazing number of plant families. In family after family the information presented delineates the existing problem in a manner that makes it clear whether or not palynology has anything to contribute toward the solution of the problem. As might be expected, it has much to contribute to some problems and nothing to others. Nevertheless palynology is an aspect of systematic botany that cannot be neglected. Through the techniques developed by Dr. Erdtman and other, palynologists, the taxonomist is provided with a new set of comparable facts to employ in the synthesis of relationships.

To assess the usefulness of the work your reviewer sought to determine if the subject as presented made a contribution to several taxonomic problems of which he was aware. He was extremely gratified to find that it either provided additional concomitant characters to bolster ideas that lead one to differentiate groups, or it indicated that my previous doubts were supported by inconclusive evidence from palynology. In some cases evidence tended to refute ideas from other sources. This of course may work both ways in an argument. However we are only interested in the facts, and each interpreter may utilize them toward his objective as he may see fit. In the problems your reviewer chose to investigate, his own views were either satisfied or frustrated by the palynological evidence presented. The main point is that he found something that applied to each problem one way or the other.

In most families the discussion centers around the taxonomic subdivisions whereby genera are aggregated within the families. In addition, very often there is mention of evidence of relationship to other families, and similarities are often pointed out that stimulate questions. In some cases their resemblances seem possibly to have resulted from some aspect of parallel development.

The typography and the binding are excellent examples of the printers' art. In this epoch of expanding concepts of taxonomy, Dr. Erdtman's book will play a very important role by pointing the way to arrive at a host of new comparable facts about plants.—Herbert L. Mason, Department of Botany, University of California, Berkeley.

The Fern Genus Diellia: its Structure, Affinities and Taxonomy. By Warren H. Wagner Jr. Univ. Calif. Publ. Bot. 26:1–212. 1952. Plates 1–21. 31 figures in text. University of California Press, Berkeley. $3.00.

Diellia is an endemic genus of Hawaiian ferns. Wagner recognizes five species, of which one, *D. unisora* (p. 160), is described as new.

Considering the size and limited range of the genus, *Diellia* has received a remarkable amount of study. Most authors have treated it as a relative of *Lindsaea*. A minority have regarded it as Davallioid. A small minority have recognized it as Aspleniid.

As a naval air navigator, Wagner had many opportunities to collect in Hawaii. After choosing *Diellia* as the subject of his doctor's thesis, he spent two seasons in the field, visiting every known area of collection. He made transplants from the field to California, and many cultures from spores. He also secured for study almost all past collections, including types.

He then compared *Diellia* (all species) with numerous representatives of the three families to which *Diellia* has been ascribed. This study included habitat, complete life-histories, and complete morphology, including prothallia and sporophytes. The chromosome number is $2n = 72$, known to characterize *Asplenium*. His conclusion is that resemblances to *Lindsaea* are superficial or accidental results of convergent evolution. The resemblances to *Davallia* are inconsequential. All valid evidence shows affinity to *Asplenium*. More definitely, the affinity is to the "rock aspleniums," typified by *A. Trichomanes* and including *Ceterach* and *Camptosorus*.

In the reviewer's prejudiced judgment, this is the model generic monograph, the kind foreshadowed by Milde's "Equisetum," in which the taxonomic element is the conclusion, but not the body of the work.

An interesting detail of the conclusion is that the ornate "species," *D. Alexandri*, found on three islands, has evolved independently on each island from *D. erecta*. Being triphyletic, it is not a taxon of any rank, even a variety, but merely a "forma." E. B. Copeland, Department of Botany, University of California, Berkeley.

Flora of West Virginia. (Part I). By P. D. Strausbaugh and Earl L. Core. West Virginia University Bulletin, Series 52. June, 1952. $1.00.

Up-to-date state and local floras are an important supplement to the regional floras or "field manuals" now in use in their appropriate areas. By treating fewer taxa, such state or local floras are easier for beginning students to use, especially if the descriptive material for each taxon is accompanied by a good illustration. By treating these taxa more completely—both taxonomically and bibliographically—these smaller floras offer distinct advantages to the specialist or to the more advanced student of botany. Unfortunately, there are only a few such illustrated state floras, and these are usually quite expensive—well beyond the financial reach of most individual botanists and even beyond that of many of the less heavily endowed schools. Needless to say, this sharply limits their potential usefulness.

With this in mind it was a very pleasant surprise to find, on reviewing this well-illustrated first volume of the Flora of West Virginia issued as a bulletin of the University of West Virginia, that it cost only one dollar. The authors intend two or three additional fascicles to complete the series. If these later fascicles sell for the same amount as the first, the entire illustrated set, treating "approximately 2,000 species," will be available for less than five dollars.

Part I of the series treats the Pteridophyta, the gymnosperms, and the monocotyledons growing without cultivation in West Virginia. The dichotomous keys to the genera and species appear well done, but the lack of a key to the families may handicap some students. The lack of an index in each volume will, at times, be a handicap to beginner and specialist alike, especially in reference to common names. Following the style of Fernald's recent edition of Gray's Manual, the meanings of all generic and specific names are included